



CoolPoly® E1201 Thermally Conductive Polypropylene (PP)

CoolPoly E series of thermally conductive plastics transfers heat, a characteristic previously unavailable in injection molding grade polymers. CoolPoly is lightweight, netshape moldable and allows design freedom in applications previously restricted to metals. The E series is electrically conductive and provides inherent EMI/RFI shielding characteristics.

| Thermal | SI/Metric | | Testing Standard |
|------------------------|-----------------------------|----------------------------|-------------------------|
| Thermal Conductivity | 10 W/mK | | ASTM E1461 |
| Thermal Diffusivity | 0.0587 cm ² /sec | | ASTM E1461 |
| Specific Heat | 1.28 J/g°C | | ASTM E1461 |
| Mechanical | SI/Metric | English | Testing Standard |
| Tensile Modulus | 5620 MPa | 815 ksi | ISO 527-1 |
| Tensile Strength | 22 MPa | 3190 psi | ISO 527-1 |
| Nominal Strain @ Break | 1.0 % | 1.0 % | ISO 527-1 |
| Flexural Modulus | 5410 MPa | 784 ksi | ISO 178 |
| Flexural Strength | 37 MPa | 5365 psi | ISO 178 |
| Impact Strength | | | |
| Charpy Unnotched | 5.38 kJ/m ² | 2.56 ft-lb/in ² | ISO 179-1 |
| Charpy Notched | 3.25 kJ/m ² | 1.55 ft-lb/in ² | ISO 179-1 |
| Physical | SI/Metric | English | Testing Standard |
| Density | 1.24 g/cc | 0.0448 lb/in ³ | ISO 1183 |
| Mold Shrinkage | | | |
| Flow | 0.35 % | 0.0035 in/in | ASTM D551 |
| Cross-Flow | 0.6 % | 0.006 in/in | ASTM D551 |

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